

Ice Cream Production Line

Complete Turnkey Business Proposal



Real supplier equipment reference for Ice Cream Production Line

1 shift entry operation	Semi-auto starting format	Phased capacity growth
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Prepared for investment planning in Afghanistan and regional export markets. Final specifications, pricing, civil works, and utility loads require supplier quotation and site survey.

Executive Summary

This proposal presents a practical low-entry ice cream production line for Afghanistan. Pasteurising and homogenising mix, ageing, continuous freezing, inclusion dosing and packaging in retail and family sizes. The starting configuration prioritizes economical Chinese machinery, local fabrication of noncritical items, affordable local labor, simple buildings and phased automation.

Why this project fits Afghanistan

- Local production can replace selected imported finished goods.
- Affordable land, labor and local fabrication reduce the entry threshold.
- A one-shift starting model limits working-capital pressure.
- Modular equipment allows capacity to grow with confirmed sales.

Sanaatchi delivery scope

- Factory setup planning, supplier pre-qualification, and technical comparison
- Complete production-line and individual equipment supply
- Factory layout, utilities, civil-work coordination, installation, and commissioning
- Raw-material sourcing, trial-batch qualification, and repeat supply planning
- International logistics, customs documentation, operator training, spare parts, and after-sales support

Start with one semi-automatic shift and the minimum core equipment needed for ice cream production line; add automatic handling and higher-speed packing after demand is proven.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Cup ice cream	Confirm size, grade, formulation and pack specification for cup ice cream	Afghanistan and nearby regional buyers
Stick ice cream	Confirm size, grade, formulation and pack specification for stick ice cream	Afghanistan and nearby regional buyers
Bulk tubs	Confirm size, grade, formulation and pack specification for bulk tubs	Afghanistan and nearby regional buyers
Flavoured frozen desserts	Confirm size, grade, formulation and pack specification for flavoured frozen desserts	Afghanistan and nearby regional buyers

The proposed flow is derived from the website product scope: Pasteurising and homogenising mix, ageing, continuous freezing, inclusion dosing and packaging in retail and family sizes. Final machine models, recipes, output and quality standards must be confirmed against local raw materials and buyer requirements.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Raw-material receiving hopper	Receives, buffers or feeds the ice cream input at a controlled rate.	State input form, feed rate, storage volume and contact material.
2	Cleaning and inspection conveyor	Checks incoming material or finished ice cream against the agreed acceptance criteria.	Define defect limits, test method, sampling rate and reject arrangement.
3	Preparation or size-reduction unit	Performs the defined preparation or size-reduction unit operation within the ice cream process.	Confirm capacity, working range, utilities, construction material, controls and acceptance test.
4	Recipe-controlled mixer	Meters and blends the confirmed ice cream formulation uniformly.	State batch size, mixing time, accuracy and product-contact material.
5	Thermal processing unit	Applies the controlled thermal treatment required for stable ice cream quality.	Confirm temperature range, residence time, heat source, capacity and insulation.
6	Transfer pumps and conveyors	Transfers ice cream material between process stages without creating a bottleneck.	Match flow rate, product characteristics, transfer distance and hygiene or dust controls.
7	Filling or portioning machine	Measures, closes, identifies or groups finished ice cream for sale and transport.	State pack sizes, packaging material, speed, coding and change-parts required.
8	Sealing and coding machine	Measures, closes, identifies or groups finished ice cream for sale and transport.	State pack sizes, packaging material, speed, coding and change-parts required.
9	Secondary packaging line	Performs the defined secondary packaging line operation within the ice cream process.	Confirm capacity, working range, utilities, construction material, controls and acceptance test.
10	Basic food-quality laboratory	Checks incoming material or finished ice cream against the agreed acceptance criteria.	Define defect limits, test method, sampling rate and reject arrangement.

Equipment models are indicative and will be matched to the selected capacity, local raw-material tests, available utilities, and preferred automation level.

Reference Equipment Gallery



Real supplier equipment reference for Ice Cream Production Line



Real supplier equipment reference for Ice Cream Production Line



Real supplier equipment reference for Ice Cream Production Line

Images are supplier references for configuration discussion; final equipment appearance and model may differ.

Plant, Raw Materials & Utility Requirements

Raw materials

- Primary agricultural or food ingredients
- Recipe additives and processing aids
- Food-grade packaging materials
- Cleaning and sanitation chemicals
- Labels, cartons and pallet wrap

Utilities & infrastructure

- Three-phase power
- Potable and process water
- Drainage and washable surfaces
- Steam, gas or electric heat as required
- Compressed air
- Cold room or dry warehouse where required

Quality, safety and environmental controls

- Incoming-material inspection and supplier records
- Documented machine settings and production batches
- Routine dimensional, visual and functional checks
- Safe guarding, emergency stops and operator training
- Final product sampling before release and dispatch

A final factory layout must reserve safe forklift routes, maintenance clearances, raw-material segregation, finished-goods storage, fire protection, ventilation, and future expansion space.

Indicative Investment & Implementation Plan

LOW-ENTRY CONFIGURATION

Afghanistan entry case: economical Chinese equipment, locally fabricated noncritical items, local civil works and labor, phased automation, and land excluded. Optional automation can be added after sales are established.

Component	Indicative range	Notes
Entry process machinery	US\$45k-180k	Economy configuration using local labor where practical
Local utilities and civil works	US\$15k-60k	Economy configuration using local labor where practical
Packing and laboratory	US\$12k-45k	Economy configuration using local labor where practical
Freight and installation	US\$15k-55k	Economy configuration using local labor where practical
Working capital	US\$10k-40k	Economy configuration using local labor where practical
Low-entry project total	US\$97k-380k	Economy configuration using local labor where practical

Implementation sequence

Phase 1	2-3 weeks	Confirm products, entry capacity and buyer requirements
Phase 2	3-5 weeks	Compare suppliers and finalize the economy configuration
Phase 3	6-12 weeks	Manufacture equipment and prepare the local workshop
Phase 4	3-6 weeks	Shipping and customs clearance
Phase 5	2-4 weeks	Installation, training, trials and market launch

Ranges are planning targets for a low-cost entry configuration, exclude land, and remain subject to confirmed capacity, supplier quotation, freight, duties, exchange rates and site conditions.

Next Steps & Contact Information

Recommended next steps

- Confirm target products, hourly output, and packaging formats
- Test representative raw materials and document quality requirements
- Complete site survey covering electricity, water, fuel, drainage, roads, and warehouse space
- Request comparable technical and commercial quotations from shortlisted suppliers
- Finalize financing, logistics, installation, training, and spare-parts plan

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Research and image references

- Made-in-China supplier image reference:

<https://image.made-in-china.com/2f0j00AaKejtldrYrZ/Small-Scale-300L-H-Industrial-Ice-Cream-Production-Processing-Line.jpg>

- Made-in-China supplier image reference:

<https://image.made-in-china.com/2f0j00hsCiflGLJoUl/Soft-Ice-Cream-Cotton-Candy-Production-Line-Industrial-Marshmallow-Filling-Machine.jpg>

- Made-in-China supplier image reference: <https://image.made-in-china.com/2f0j00OafBngqCOQpt/Industrial-Mochi-Encrusting-Machine-Automatic-Mooncake-Maamoul-Ice-Cream-Production-Line.jpg>